Faculty Development Plan, 2013

Information Systems

I. Self-Assessment

Strengths:

First and foremost, I strongly believe in the mission of BYU—to assist individuals in their quest for perfection and eternal life. I have a deep and abiding testimony of the gospel of Jesus Christ and our Heavenly Father's personal interest in each of his children, whatever our circumstance or situation (e.g., rich or poor, educated or ignorant). I know that He loves each one of us and wants us to return to live with him. What a wonderful privilege to be a part of this marvelous work!

I'm passionate, particularly about learning. I love to learn, I love to help others learn, and I love to help others learn how to learn. I am interested in students and particularly in their learning and development. I am interested in them as individuals. I have the ability to convey complex topics in simple terms. I have the ability to teach a wide variety of classes (e.g., software development, database, data communications, infrastructure) at various levels (i.e., I currently teach juniors, 1st year Masters and 2nd year Masters). My classes are applied and pragmatic.

I'm collegial. I enjoy my faculty colleagues and love to learn from them. I respect them individually and as a whole, not only in the classroom and in regards to research but I respect how they live their lives.

I'm involved. I am involved in departmental activities including our department's student organization. I am involved with our alumni and helping them create an organization to strengthen the tie with each other, current students, the department and of course the university. I am involved in our international professional organization, the Association for Information Systems. I serve on the AIS Student steering committee and have initiated a world-wide program for student competitions. I am involved in research and have served not only as a reviewer but also frequently as a chair of a research symposium at a major international conference (5 years) and other conferences. I often serve as an ad-hoc reviewer for top-tier journals and conferences in our discipline.

I'm experienced. I have worked in the field of Information Systems as a software engineer and consultant. I have a number of industry recognized certifications. I'm able to bring relevant know-how and expertise to the classroom and to my research. My research is applied and pragmatic.

Skills and competencies:

I have numerous skills and competencies related to the design, development and deployment of Information Systems. I have industry experience conceptualizing, developing and deploying large information systems. I have consulted with and trained employees at large organizations including the US Department of Defense, FedEx, Autozone, the Church of Jesus Christ of Latter-day Saints, and others. I have industry recognized certifications in the area of software development (Microsoft Certified Database Administrator, Microsoft Certified Solutions Developer, Sun Certified Java Developer, Oracle PL/SQL Developer), and Networking and Infrastructure (Cisco Certified Network Administrator, Microsoft Certified Solutions Engineer), as well as other industry certifications.

These skills have proved useful as I have developed systems for my research including systems to 1) automatically analyze human nonverbal behavior and then classify it (e.g., deceptive/truthful), and 2) connect large groups of individuals so they can collaborate effectively. I have also put these skills to use in my teaching by developing environments where my students can interact with each other and further their learning outside the classroom.

I have diverse research skills including competency in the area of experimental design and analysis, design science, survey design and analysis, qualitative analysis, and others. Most of my research work is applied and much of it has been funded.

I'm an excellent teacher who is knowledgeable and systematic in the design of the courses that I teach. I hold BYU students in high regard. I challenge my students and expect a lot out of them. I am quick to recognize their successes and offer an understanding hand as they learn the skills and knowledge that are important, not only for my courses but for their career and lifelong learning. I am systematic in the design of my courses and I know how to develop creative activities to help students learn the material by doing (i.e., developing and implementing systems). I know how to assess learning. I am continually improving my courses.

Research Interests

Architecting the flow of information between various entities within and between organizations is a central focus of the Information Systems discipline. Technology is an enabling means of achieving this objective but it is not the end in and of itself (i.e., we don't just use technology for technology's sake). Information is the lifeblood of an organization and technology can be used to make sure that the right information gets to the right people at the right time. At a high level, my research focuses on 1) assessing the validity and fidelity of information streams, 2) how different types of information influence decisions, and 3) how large groups of individuals can use technology to collaborate and create new information. I also have publications related to how information systems are developed, tested, and integrated.

Areas I wish to develop

Teaching - Conceptual - I would like to continue to expand my knowledge in the area of enterprise infrastructure and networking as these are central topics to some of the courses that I teach. I plan to pursue additional certifications related to these topics and also related to other areas of the discipline.

Teaching – Pedagogical – I would like to limit the amount of in-class time devoted to basic concepts and instead focus on additional hands-on activities that reinforce basic concepts the students learn outside of the classroom. I would like to explore the use of a blended learning environment in at least one of my classes. I'm excited for the opportunity to refine the four distinct classes that I taught this last year.

II. Professional Goals and Plan

Teaching

I believe learning consists of two main components: 1) knowledge acquisition, which consists of incorporating new knowledge or behavior in an individual's current understanding, and 2) critical thinking, which consists of appropriately applying relevant information and knowledge from an individual's current understanding to novel situations. Each of these components is critical for successful, long-term learning. In my view, the main purpose of a teacher is to maximize the amount of long-term learning that occurs, both for individuals in a class and also for the class as a whole.

Students bring a diverse collection of beliefs, values, knowledge and experience to the classroom environment. They are endowed with different learning abilities. Understanding how to convey complex concepts in simplified, concise terms at the appropriate level for the current understanding of students is extremely challenging. However, perhaps an even more challenging task is to create an environment / structure where students can develop critical thinking skills.

My teaching philosophy is largely influenced by my teaching experience (large groups of professionals and smaller groups of students in academia) and also the teachers of my past (both effective and not so effective). To me, effective teaching requires a systematic approach and effective teachers understand how to alter the specifics of the approach for the current situation. My systematic approach to teaching consists of preparation, delivery, and evaluation.

Preparation

Preparation is the foundation of success in teaching and in my view it consists of more than just preparing the content that will be delivered. First, you need to develop an understanding of the students, their background, the goals they might have, previous knowledge/experience, etc. Then, you must select what content should be taught, taking into account other factors, such as the course learning outcomes. The method of content delivery may change based on this information. Preparation takes time, perhaps more than the other stages combined.

A student should not have to guess what is expected. Setting clear expectations requires preparation. Syllabi should be detailed, but not overbearing. The major components of a course should be clearly explained including any projects or papers. How a student is evaluated should also be clear.

Delivery

While there are many methods that could be used to deliver the content of a course, no single method is optimal for everyone all of the time. However, it is also a mistake to incorporate too many styles and methods. From my casual observation, however, teachers often incorporate far too few methods. In general, I believe in methods that promote active learning including interaction with and participation from the students.

The classroom should be an environment where students can openly express their ideas and opinions about course topics and receive thoughtful, respectful feedback. I believe a class should challenge most of the students. The difficulty and the speed of delivery of the content should not be targeted to the

lowest common denominator, rather, I believe that most people should feel like it is keeping them on their toes, but not losing them.

Assessment

Assessments can provide a realistic view on the progress of the students and the teachers. Certainly, traditional assessment methods such as homework, quizzes, projects and exams provide a rich amount of feedback for the student. I have found that the more innovative and interactive versions of these activities (e.g. running SQL queries on a database that the student created) often facilitate a shift from just knowledge acquisition to an integrated view of both knowledge acquisition and how that knowledge might be applied in the future. I believe that feedback to students should be frequent and timely. I believe they should receive both quantitative and qualitative feedback. Office hours have also been an excellent time for providing one-on-one or small group feedback and to assess comprehension.

To effectively learn something I believe you need to first acquire the knowledge, apply it in a familiar setting (very similar to the examples given), and then apply it in a more general context. In the past I have accomplished this pattern by teaching a concept in class (including examples and activities), requiring it as part of a homework assignment, and then applying it to a personalized project. I have found that many students learn by the repetitious pattern that begins with a very specific problem/example and then generalizes to other situations.

As a teacher, I feel that it is extremely important to receive feedback—not only about the course, but also perceptions of me as a teacher. I have found that periodic student evaluations, peer-evaluations, and frank self-evaluations have been useful in making adjustments to the course, methods, or my teaching style.

Teaching Goals

My ultimate goal related to teaching is to help students learn how to learn. I hope that the content and skills that they acquire in my classes do not just satisfy requirements for their degree but they can use these skills and apply them in their internships and jobs and throughout their careers. Hopefully they can use what they have learned in my classes to be of greater service to their employer, family, and fellowmen. I want to challenge students but also have them see the value in what they are challenged to do. I would like to see my average student evaluations improve consistently. My initial goal is to attain above seven on an eight-point scale.

Teaching Plan

I plan to do the following to improve my teaching:

- Conduct a self-study for each course including:
  - Listing and justifying learning outcomes
  - Mapping learning outcomes to course activities
  - Showing how course-level learning outcomes support program outcomes
  - Discussing how students are assessed
  - Evaluating and categorizing student comments
  - Characterizing what helps students to learn and what they would keep/change
  - Developing a plan of action for continual improvement

- Seek peer evaluations for each of my courses
- Seek out outstanding teachers from Information Systems (and perhaps others in the college)
  - Discuss the structure and characteristics of their courses
  - Attend a lecture/class-activity
  - Invite them to attend my class and provide feedback
  - Invite them to review my materials
- Read at least one book a year related to teaching

Research

I enjoy research and have many research interests. As described above, I am interested in applied and pragmatic research. Specifically, as described above, I am interested in 1) assessing the validity and fidelity of information streams, 2) how different types of information influence decisions, and 3) how large groups of individuals can use technology to collaborate and create new information. I also have publications related to how information systems are developed, tested, and integrated.

In my current appointment, I only have minimal research expectations. However, I have a strong desire to stay active in research and stay academically qualified.

Research Goals

I would like to continue to publish papers in our discipline's top conferences and journals. While I have a number of publications in respectable outlets, I would like to focus my research efforts on projects the will be submitted to A-tier journal outlets. I would also like to do research with my colleagues here at BYU.

Research Plan

Each year I plan to submit at least one conference paper to our top conferences (ICIS, AMCIS or HICSS). I also plan to submit at least one article a year to an A-tier journal.

In regards to research, I plan to:

- Set aside consistent blocks of "uninterruptable" time for my research work and writing (during this time, research will be the sole focus)
- Continue to collaborate with my established networks
- Submit at least 2 papers based on data/ideas that I already have underway
- Begin at least one new project before next summer with at least one of my BYU colleagues
- Quick turnaround - When working with colleagues, seek to minimize the amount of time that research tasks are in my court

Citizenship

I believe that I am a good citizen and I will continue to strive to be so. To me citizenship activities include not only interactions with my colleagues and supporting my departmental activities, but also supporting college and university initiatives and also providing support for my discipline.

Citizenship Goals

I understand that, in general, Assistant Professors have limited expectations in regards to citizenship at BYU. While perhaps a bit more active than some of my same rank, I would like to continue to be an outstanding citizen by being actively involved.

Citizenship Plan

I plan to:

- Serve as the faculty advisor for our departmental student club, the Association for Information Systems
- Initiate, organize and support our departmental alumni organization
- Continue to serve as an ad-hoc reviewer for our top conferences and journals
- Serve as a co-chair or program chair for relevant research symposiums/tracks for areas of interest/expertise
- Serve on the student chapter steering committee of our discipline's professional organization, the Association for Information Systems

III. Individual, Departmental, and University Goal Alignment

My individual goals and strengths support departmental needs and the university's mission. Specifically:

- I teach several classes that are an integral part of our major, some of which require specific skills that I have.
- I manage a lab for our department that allows many classes to conduct hands-on/applied learning using technology that otherwise wouldn't be possible.
- These courses and resources allow students to "receive instruction in the special fields of their choice." Preparation of these students is "excellent" as our graduates are competitive with the very best in our discipline (as evidenced by placement statistics and numerous verbal reports).
- My research is applied and pragmatic supporting the idea that our research and creative endeavors should be of real consequence.
- I am anxious to help student learn how to learn and engage in lifelong learning. Additionally my goals support the idea that learning is not just a cognitive task isolated in one specific area but rather contributes to a "balanced development of the total person."
- Perhaps most important, I have a testimony of the truths of the gospel of Jesus Christ. I am concerned for students, not only in regards to their course performance but I am genuinely interested in them as individuals.

IV. Resource Needs

I am thankful for the generosity of the University, the college, and my department thus far in providing numerous resources to help me and the students that I have taught.

My needs are fairly basic. I need to be able to teach the same classes over multiple years in order to develop and refine materials and calibrate the courses to the needs of the students. I need assistance in the form of teaching assistants for my classes. I also need a reasonable amount of money for teaching

and research related expenses including software, books, travel, membership dues, etc. My needs have been met in this regard.

V. Summary of Goals

I want to be considered excellent in all that I do--as a teacher, as a researcher, and as a citizen. I want to have a lasting impact for good, not only among the students but among my colleagues and other with whom I associate. I want to uplift, build, and encourage. I want to make a difference.

Before my mission I was in an electronics store on the East Coast and a store employee walked up to me and asked if I was a Mormon. A bit surprised, I indicated I was and asked how he knew. He just smiled and said that he could see it in me. I hope that others will always be able to see that I believe in Jesus Christ and that I am doing my best to be what He and our Heavenly Father would have me be.

Course Development Project, 2013
Information Systems

Introduction

I have selected IS 531, Enterprise Infrastructure, for my course development project. The syllabus for the course will be sent separately.

Learning Outcomes
- Identify elements of enterprise IT infrastructure demonstrate how individual elements are inter-related
- Analyze and discuss current trends and advances in computer hardware, software and IT service management
- Competently discuss principles of IT systems management and systems administration including service-level management, availability, continuity management, and backup/recovery
- Explain general computer hardware and software concepts including principles of data representation and manipulation in computing solutions
- Design, develop, and deploy an application on a cloud-based infrastructure
- Perform common systems administration tasks on popular operating systems (e.g., Linux, Windows) by creating scripts
- Design information systems solutions that "scale"

Scholarship Strategies Project, 2013
Information Systems

Introduction

As stated in the guidelines, the purpose of the "Scholarship Strategies Project" is to "encourage more structure, discipline, and focus in [my] scholarly work."

Overview of Research Interests

Architecting the flow of information between various entities within and between organizations is a central focus of the Information Systems discipline. Technology is an enabling means of achieving this objective but it is not the end in and of itself (i.e., we don't just use technology for technology's sake). Information is the lifeblood of an organization and technology can be used to make sure that the right information gets to the right people at the right time. At a high level, my research focuses on 1) assessing the validity and fidelity of information streams, 2) how different types of information influence decisions, and 3) how large groups of individuals can use technology to collaborate and create new information. I also have publications related to how information systems are developed, tested, and integrated.

In my current appointment, I only have minimal research expectations. However, I have a strong desire to stay active in research and stay academically qualified.

Research Goals

I would like to continue to publish papers in our discipline's top conferences and journals. While I have a number of publications in respectable outlets, I would like to focus my research efforts on projects the will be submitted to A-tier journal outlets. I would also like to do research with my colleagues here are BYU.

Each year I plan to submit at least one conference paper to our top conferences (ICIS, AMCIS or HICSS). I also plan to submit at least one article a year to an A-tier journal.

Specifically I would like to:
- Submit a paper to HICSS for presentation in January 2013
- Submit an article to ICIS or AMCIS for presentation in August 2014 or December 2014
- Submit another A-tier paper by Summer 2014

Research Strategies

In regards to research, I plan to:
- Set aside consistent blocks of "uninterruptable" time for my research work and writing (during this time, research will be the sole focus)
- Continue to collaborate with my established networks
- Submit at least 2 papers based on data/ideas that I already have underway
- Begin at least one new project before next summer with at least one of my BYU colleagues
- Quick turnaround - When working with colleagues, seek to minimize the amount of time that research tasks are in my court

Evaluation of Research Strategies

I will evaluate the success of incorporating the above research strategies into my habits by:
- Tracking consistency of research and writing time (weekly basis)
- Tracking average turnaround time for tasks related to what I am working on and identification of any impediments that spread out the time
- A brief written assessment of the completion of other goals (i.e., submission of articles, initiation of projects)

Citizenship Project, 2013
Information Systems

Introduction

As stated in the guidelines, the purpose of the "Citizenship Project" is to foster the habit of regularly reaching out to develop and nurture collegial associations and collaborations. As such, I have focused on how to "reach out" to my colleagues in both my teaching and research responsibilities.

Collaborative Goals/Activities (To be completed by February 2014)

I would like to pursue both teaching and research activities to increase collaboration with my colleagues. Specific plans include:

- Teaching
    - Observe colleagues' teaching by attending at least one class for the majority of departmental faculty teaching during Fall semester 2013
    - Discuss successful teaching ideas/activities with the majority of department faculty
    - Invite at least 3 faculty to observe my classes and give me feedback
- Research
    - Discuss research interests with at least 3 faculty
    - Start at least one research project with colleagues at BYU

Course Development Project, 2013 – Grant Proposal
Information Systems

I would like to enhance the classes I teach by capturing adding a few video vignettes related to the topics that we cover. I will do this in 2 ways: 1) by interviewing experts in the field, and 2) recording guest speakers and reusing excerpts of their visits in subsequent years. I have access to video equipment, editing software, and all other equipment but I do not have access to video lighting equipment.

With the $300 from this grant, I would like to purchase a video lighting kit to be used when filming. I will use additional departmental/personal teaching/research funds to cover the difference in cost. The lighting kit that I will most likely buy is the following:

<div align="center">

Bescor LED-500K 2 Light studio lighting kid
Price: $532.95

</div>

I plan to create a repository of short, applicable videos that are educational and professional. These videos will supplement the content that we cover in class and will provide external validation that the topics that we are discussing are timely and relevant.